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TWO CASES OF LABOR IN THE SAME PATIENT.

PERSISTENCE OF THE HYMEN, OBSTINATE VOMITING, AND ATTEMPTS AT PRODUCING  
ABORTION.

[Read before the Boston Society for Medical Observation, Sept. 17th, 1860, and communicated for the Boston Medical and Surgical Journal.]

BY CHARLES E. BUCKINGHAM, M.D.

THE history of the two cases now presented is interesting, from the persistence of the hymen, through both labors; from the excessive vomiting, relieved, but not cured, by unsuccessful attempts to produce miscarriage; and from the power of the uterus to retain its contents, notwithstanding the apparent violence used.

Mrs. —'s first labor was at the age of 22 years. The catamenial flow began, for the last time preceding it, on the 23d of December, 1857. Forty weeks from that date fell on the 28th of September, 1858. Her labor began on the 11th of that month. Through the whole of her pregnancy, she suffered from excessive neuralgia of the face, and sometimes in other parts of the body, requiring narcotics, and only relieved by very large doses of morphia. I am unable to say whether, during this pregnancy, there was much nausea. Her labor began with rupture of the membranes, at about 3, A.M. I saw her soon after 4, A.M. The position of the head, which was entering the pelvis, I could not make out, on account of the hymen, which was crescentic in form, covering the mouth of the vagina almost entirely; and the cervix uteri, which was quite long, with its os very small. The hymen was easily distended with the fingers, and remained unbroken, through the labor, gradually merging in the vaginal walls as the head came down. I may remark, that in this lady's sister I found an unbroken hymen some months after marriage, while examining on account of supposed uterine disease. At the first examination, the pains were every ten minutes. At 9½, A.M., they were as often as once in three minutes, and the cervix uteri was nearly obliterated. At

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2, P.M., she ate dinner, although in severe pain. At 2½, P.M., the os uteri was not larger than a twenty-five-cent piece, and the pain was so severe that I etherized her. The vertex was in the left occipito-cotyloid position. Passed two fingers into the vagina, and drew forward the anterior lip of the os, which was thin, pressing it forwards and upwards. The vagina became more relaxed, and the os dilated easily. The pains, as has been usual in my experience, diminished from the commencement of etherization. At 5¼, P.M., the edges of the os had nearly disappeared, and she got tinct. fort. secal. cornut., ʒ i., c. spir. camphoræ, gtt. xxv. in iced water. About 7, P.M., the os uteri slipped back over the head. Pulse 84, and pains inefficient. At 7¾, P.M., head lying on the floor of the pelvis, but the contractions were powerless. The labor was completed at 8 o'clock, with the short forceps. The child was a female, weighing 8½ pounds. The placenta came away within fifteen minutes. Considerable flowing went on for the next hour. It was necessary to pass the catheter once on the following day, but she was perfectly comfortable on the 13th. Mrs. — was unable to nurse her child, for want of a sufficient supply of milk, and the efforts causing severe facial neuralgia. It was weaned, therefore, in December, within three months after birth.

Her menses came on before weaning, and continued with regularity till the 31st of January, 1859, occurring at least three times. On this date it began as usual, and lasted several days. This was her last menstruation. She never had had any irregularity of menstruation. She was in good health, after weaning the child, until the 8th of March. On the 6th of March, she rode over one hundred miles, and back again on the 8th. Was much fatigued, and had no appetite while away, although she felt perfectly well. On the 10th, she still felt fatigued, and had nausea after breakfast. At night, she had the excitement of a party, and during the evening, vomited. Had eaten nothing during the day. On the morning of the 11th, got a warm bath and hot drink. From this time till March 19th, at noon, was unable to retain any article upon the stomach. For three days and nights, she did not pass fifteen minutes without vomiting. Dr. John Ware saw her with me, at noon, on the 16th. For the previous forty-eight hours, the matter rejected was dark green. Twenty-four hours before his visit, she had taken nitrate of silver, but it only increased her distress. An hour before his visit, I had given her an enema of one half pint of beef-tea, two ounces of brown sherry wine, and a drachm of McMunn's elixir of opium. The possible necessity of producing abortion was talked about, but no definite conclusion concerning an operation was arrived at in concert, Dr. Ware doubting whether the certainty of success was sufficient to guarantee the undertaking. By his concurrence, the enema was repeated every four hours, but without relief to the nausea. The enemata were retained at will. The pulse increased somewhat in fulness.

At noon, on the 19th, I examined her *per vaginam*. The finger was admitted with difficulty, owing to the hymen, which covered at least one half the orifice. There was no tenderness, and there was no apparent abnormality about the parts within the vagina. A sponge tent was passed into the cavity of the cervix uteri. To my surprise, at night, I found that the nausea had ceased, and there was some pain in the loins and sacrum. Twenty hours after the tent was introduced, it was removed. There was blood upon it, and a little blood passed from the vagina afterwards. She took, in the four days following, a pint of decoction made from an ounce of cotton root bark, and four ounces of Tilden's fluid extract of the same drug. No flowing and no pain was produced by either of them.

The nausea was very slight, and perfectly endurable from this time till April 1st, when, without apparent cause, it recommenced with its former violence. She was evidently sinking from it, and remedies by the stomach and rectum availing nothing, I passed the uterine sound four inches, and swept it about. Blood followed immediately. I introduced a sponge tent into the cervix, which was expelled, at the end of twenty-four hours, with a small coagulum.

Like the first operation, this was followed by relief of the nausea, which was not excessive again till the 10th of July. There had been manifest increase of size, but no perceptible motion. Auscultation furnished no sign of pregnancy. The mental condition was that of extreme depression. The appetite was lost, and the dread of bringing a deformed child into the world, as a consequence of the operations, was so great, that there was reason to fear a serious effect upon her mind. Added to this, the nausea had again become excessive, and it alternated with facial neuralgia of the most severe character. On this evening, the probe was again introduced, and at least a gill of water came away at the time. During the operation, I felt the child's motion distinctly. Bearing down pains came on during the night, and continued at intervals for twenty-four hours, and then passed away, with all her troubles, except a little occasional nausea and neuralgia, which were always driven off by a tumbler of ale. Her mental condition improved at once, and no further operation was performed.

Just forty weeks from the beginning of her last menstruation, her second labor appeared to begin. This was on the morning of November 6th, 1859. Pain came on early, with occasional flowing of water, and lasted with regularity till ten at night, when she fell asleep.

On the 7th of November, she was up and dressed, had pain occasionally through the day, but rode four or five miles in the afternoon, and slept well all night.

Nov. 8th.—She was free from pain all day, but it began again

at about 11, P.M., and was sufficient to cause wakefulness through the night.

Nov. 9th.—The pain became severe, about 7, A.M., and expulsive. Soon after 8 o'clock, I found the head in the vagina, the occiput in advance, and at 8½, A.M., a perfect male child was born, weighing ten pounds. The placenta came away in ten minutes after the child. As in her previous labor, the hymen persisted till nearly the close of the second stage, when it gradually stretched away. There were no after pains, and on the succeeding morning the secretion of milk was abundant. From this time recovery went on rapidly.

The great power of the uterus to retain its contents, notwithstanding the violent attempts to relieve it, in addition to the severe physiological symptoms, is by no means new. There is a prevalent idea among women, that our profession is possessed of some certain, easy and safe means of procuring abortion. This idea I believe to be erroneous. That there are certain women who will abort in consequence of taking even moderate exercise, or hot teas, or repeated doses of cathartic mixed with ferruginous preparations, every one knows. These, I believe, from the statements of women themselves, are not very infrequent cases. The large majority of women, however, cannot be included among them. There is no medicine which will with certainty act in such manner, unless taken in poisonous doses. I have seen three cases of abortion from the use of the oil of tansy. Two of them were fatal, and the third was apparently at the point of death for several days, and did not recover for months. Women have taken ergot for weeks, with the only effect of producing pain in the back. The cotton root bark has become a very considerable article of sale within two or three years past, but I can learn of no case in which miscarriage has followed its use, except in those women who have previously miscarried from slight causes. Even the introduction of the sound is not infallible, nor is the injection of water into the cavity of the uterus, nor the alternate hot and cold douche, nor the galvanic battery absolutely certain. Twice within a few months, I have had women under my care who were the subjects of repeated operations with the sound from the third month, one of whom carried her child to the sixth month, and the other to the full term, notwithstanding a large quantity of water and blood followed its use in both cases. Within the same time, two women whom I attended operated upon themselves with a bit of whalebone, and miscarried in a few days. One of these told me that she was constantly in the habit of doing this operation upon herself, and I think she had done it as many as ten times. The immorality and the danger of the proceeding are but slight drawbacks to women who are determined not to have families, and the profession have not yet discovered the means of preventing



criminal abortion. Public lecturers "to ladies only" intimate that pregnancy need not be lengthened to its full term, and while they warn women against abortion, it is with such words that they encourage them to call upon them if they wish to be safe.

The subject of criminal abortion, however, is only incidental in this connection. My object was to show the difficulty of procuring abortion in a case in which it was justifiable, and in which not to attempt it would have been criminal. This was the first of the kind which came under my observation. A second, which occurred a few months later, and in which the symptoms were equally severe, at a later period, was happily terminated by the birth of a viable and healthy child. In this it was necessary to make a second attempt before labor was induced.

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INFLUENCE OF THE SUN'S RAYS IN THE PRODUCTION OF  
ORGANIC MATTER.

BY CHALES T. JACKSON, M.D.

[Communicated for the Boston Medical and Surgical Journal.]

PLANTS alone possess the property of converting inorganic and mineral elements into organic substances, a power wholly denied to animals. They are enabled to effect this wonderful conversion through the influence of the solar rays, and chiefly by the decomposition of carbonic acid gas, the carbon being separated and combined with other elements, while the oxygen is given off and goes to form that portion of the atmosphere essential to the respiration of all animals. So rapid is the operation of the foliage of plants in abstracting carbon from carbonic acid of the air, that if we place a green and leafy bough of a tree in a glass globe, and place it in the sunshine, and then blow air through the globe, by means of a pair of bellows, the air, after passing over the foliage, will be found deprived of all its carbonic acid, and oxygen will have taken its place.—(Dumas.)

When we draw a breath of air into our lungs, and then exhale it, though it has been but a moment in the lungs, it will be found so charged with carbonic acid gas, as to extinguish a burning candle. This experiment is easily made by fixing a glass tube, inserted through a cork, into the top of a glass bell or receiver, open at the lower part, and placed in a vessel of water, and drawing the air from the receiver into the lungs, so that the water will rise and fill the vessel, and then breathing back the air into the receiver. Now if the cork is removed, and a lighted candle is lowered into the bell, it will be immediately extinguished. To show that foliage, in sun-light, will restore the respirable properties of the air, bend a leafy bough so that it shall pass under the edge of the bell and come in contact with the vitiated air, and expose the whole for a few minutes to sun-light. The carbonic acid will be

decomposed, and the carbon being removed, oxygen will be left in the bell, and the candle being again applied will burn freely.

Water is not decomposed by the respiration of fishes, but only the air, dissolved in the water, goes to support their respiration, the proportion of air dissolved in water being, on the average, about  $2\frac{1}{2}$  per cent. of its bulk.

Aquatic plants depend upon the small quantity of carbonic acid that is dissolved in water for the production of their carbonaceous tissues and juices, and they, like other plants, decompose carbonic acid through the influence of the solar rays, and give out oxygen. Thus plants and fishes aid each other, the one producing the proper respirable food for the other. Without aquatic plants, water would soon be unable to sustain the respiration of fishes; and hence in natural lakes and rivers, aquatic vegetation maintains the water in its proper condition for the respiration of these animals. So in well-balanced aquaria, the proper proportions of animal and vegetable life may be kept up, and, provided there is sufficient sun-light, no mechanical admixture of air is needed; for the plants will re-produce the oxygen from the carbonic acid exhaled from the fishes' gills.

The atmosphere is an ocean of mingled gases, chiefly nitrogen and oxygen, with a small proportion of carbonic acid, the proportions being, nitrogen 76.9, oxygen 23 per cent. by weight, while that of carbonic acid varies from three to sixteen thousandths parts. Aqueous vapor, in variable proportions, is also dissolved in the air, the quantity depending on the temperature. Owing to the law of diffusion of gases, there is no separation of the heavier from the lighter by gravitation, and Gay Lussac found carbonic acid in the air he brought down in his balloon from a height of more than five miles, while Saussure ascertained its existence uniformly in the air over the highest peaks of the Alps. In large cities there is an accumulation of carbonic acid, owing to the want of free circulation of air, and the absence of an adequate amount of foliage for its removal; but it rarely accumulates in sufficient quantities to materially affect animal life. We live, then, at the bottom of a great atmospheric ocean, more than fifty miles deep.

The sun's rays penetrate readily through this atmosphere, and affect plants and animals on the earth's surface. From the dawn of creation—from the time when "God said let there be light, and there was light"—for myriads of ages, has the glorious orb of day been engaged in performing his beneficent work, and long before the creation of man the solar rays were busily employed in the preparation of the world for his advent.

Solar heat, absorbed by the wide-spreading ocean, at a time when scattered islands existed in the place of our present continents, warmed the waters, which so retained the heat as to give an almost tropical character to vegetation, even in climes far removed from the equator; and the small area of land above the surface of the

ocean radiated away into space but a small proportion of heat. Hence, perhaps, the much wider extension of the tropical flora in ancient times, when the great coal formations were produced, and the remains of tropical animals in regions too far removed from the equator to allow of their existence in those regions now.

Some geologists think that the equalization of temperature, by circulating warm water, is adequate to account even for the fossil flora and fauna of Melville's Island and of the Siberian Coast, and also of the Arctic regions of America. Brogniart supposes that there was originally a larger proportion of carbonic acid in the air than now exists, and that under those favorable conditions of greater warmth and a humid climate of the oceanic islands, a rank vegetation grew and rapidly abstracted carbon from this gas, and converted it into those plants of which coal was formed.

By this operation ages of sunshine became converted into fossilized light and heat; for submerged plants were changed into bituminous coals, which at present supply us with light and heat, both of which, in the form of coal, were stored up long anterior to the creation of man.

This wonderful provision of coal, the source of most of the light and heat we enjoy in our dwellings—this accumulated and almost incalculable source of power concentrated in the bowels of the earth, was prepared by that Being who created man, long before his coming, and thus the world was in the earliest ages fitted for the labors of civilized life, and the arts were provided with their most indispensable first materials, and the source of their greatest power.

*Boston, October, 1860.*

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#### RESEARCHES UPON THE ERECTILE ORGANS OF THE FEMALE.

[Translated for the Bos. Med. and Surg. Journal, by WM. READ, M.D.—Concluded from p. 198.]

*Erection.—Menstruation.*—It is almost superfluous now to remark that a comprehension of the muscular system of the *mesoarium* (ovarian ligament) and the *mesometrium* (broad ligament) results in restoring completely to the type of erectile organs the corpus spongiosum of the uterus and the ovary. Indeed, we have seen that the vessels of the bulb of the ovary and the pampiniform plexus are everywhere interlaced and enveloped by the fibres emanating from the ligament of the ovary and the lumbar ligament; the proper tissue of the uterus encloses by its strong trabecules the canals of the corpus spongiosum, and the efferent sinuses (utero-ovarian plexus) are themselves interlaced by the antero-posterior intersections at the beginning of the great ligaments.

Stronger and more condensed just at the erectile bodies themselves, the muscular fibres become more rare and thinner at the plexus of discharge, an arrangement which exactly corresponds

with what we observe in the corpus spongiosum of the penis, and amidst the urethro-prostatic plexus.

In this way the absolute identity of their anatomical constitution, between the corpus spongiosum of the organs of copulation and those of fecundation, allows us upon this basis alone to conclude that they are identical in nature and function; and, if other proof is necessary, have we not, in default of demonstration impossible upon the *living*, the results of experiments on the dead body, which show the possibility of artificially producing erection in those organs which are screened from observation during life, in the same way as in those, the physiological metamorphoses of which, it is possible directly to determine?

With the erection of the corpus spongiosum of the uterus, the menstrual hæmorrhage is directly connected.\* It is the uterine mucous membrane which furnishes the sanguineous flow, and it is well known that in those females who have died during menstruation, the body of the uterus is turgid, gorged with blood, and very large; it is at this time also, as I have remarked, that the artificial distension of the vessels determines, in the clearest manner, the changes of form, of volume, and of position, which are characteristic of erection. In a word, erection itself is the result of a muscular spasm which prevents the flow of blood back by the efferent sinuses. But we observe that at the *menstrual period*, the muscular apparatus, by which the corpus cavernosum of the uterus and the ovary are controlled, is in a state of spasmodic contraction, and, guided by the well-established coincidence of ovulation and menstruation, we are able to connect them with each other, and deduce from one single primary cause ovulation, erection of the uterus and menstruation.

At the time of the periodical ovulation of the *Graafian* vesicles, the adaptation of the Fallopian tube with the ovary precedes the discharge of the vesicle, and we have seen it last eight or ten days after the commencement of the heat.

The fimbriated extremity could not remain so long applied to the surface of the ovary, except in consequence of a state of spasmodic contraction in the muscular apparatus which holds it under its control. But the venous sinuses which traverse the meshes of the interlaced fibres at the umbilicus of the ovary, necessarily undergo there a partial compression, the immediate result of which is the distension and the erection of the bulb of the ovary. This accumulation of blood in the corpus spongiosum, and consequently in all the vessels of the gland, is not, doubtless, without influence

\* I have found no real erectile systems except in the uterus of the human female, and it is in her alone that we observe a menstrual hæmorrhage. As to the females of the quadrumana (*baboons, dog-headed monkeys*), in whom we find a periodic flow of sanguineous mucus rather than a true hæmorrhage, perhaps we shall find in them some rudiment of that anatomical arrangement peculiar to the human female. I have not had any opportunity to make investigations upon this subject, but have seen that in the bitch, which also frequently shows a periodical flow of mucus more or less tinged with blood, the vascular richness of the parietes of the uterus is nothing more than an outline, very incomplete, of erectile tissue.

upon the evolution of the vesicle, and hastens the maturation of the ovule.

These modifications of the circulation of the ovary have a forced reaction upon that of the uterus; the communications of the uterine plexus with the ovarian veins are so large and so numerous, that the pampiniform plexus should evidently be considered as one of the channels of discharge, and the main one even, of the corpus spongiosum of the uterus. The result of this is that the obstacle to the flow of blood through the canals of this plexus should find in the body of the uterus a condition analogous to that which manifests itself at the bulb of the ovary. The erection of these organs is the forced consequence of the same cause.

It is, moreover, probable that at the period of ovulation the fibres of the mesometrium (broad ligament) which embrace all the veins of the uterine plexus, those which empty themselves into the hypogastric veins as well as those which communicate with the ovarian plexuses, are also under the influence of this excito-motory cause which determines the spasmodic contraction of the ovario-tubal fibres, and that all the channels of discharge of the uterus are in the most favorable conditions for the distension of the corpus spongiosum.

The principal cause of the erection being the same with that which determines the adaptation of the fimbriated extremity to the ovary, the two phenomena ought to have the same perceptible duration. The increased tension in the erectile formations, being prolonged, finishes by communicating itself, by degrees, to the vessels of the mucous membrane, and to the capillaries which ramify at its surface under a simple layer of epithelial cells; the desquamation of these cells, shortly leaves the thin membrane naked to the origin of the capillaries in the walls; these, too, yield at last, break, and the sanguineous exudation oozes from the surface of the mucous membrane, as long as the erection persists, and as long as the obstacle remains\* to the free flow of blood by the veins.

\* Circulation is not interrupted during erection. The arteries, which by their less volume escape the compression which the veins that surround them undergo, continue to convey the blood into the corpus spongiosum, which becomes distended, and the overplus of which only escapes by the channels of discharge, or by the accidental orifices of broken capillaries. According to Debrun, "Gangrene would be the inevitable consequence of an indefinite stasis of the blood. If erection continues a great while, many hours, it is very necessary that as much blood should flow out as enters, in order that gangrene should not supervene. But, if as much blood flows out as enters, in a prolonged erection, it is necessary to admit that it is the same in ordinary turgescence, a position which is irreconcilable with all the theories of erection in consequence of a mechanical obstacle to the flow of venous blood." This objection is specious (it means little more than the theory of erection by the action of sexual hearts (Kobelt) escaped there, for this theory is false or exceedingly incomplete); but it is, it appears to me, very easy to refute. When the contraction of the muscular network determines, not complete occlusion, but diminution only of the calibre of the veins, the arteries freely throw into the areolar spaces a quantity of blood, at least equal to that of the ordinary circulation, and more considerable than that which actually flows out by the veins, as long as the distension of the erectile organs tends itself to increase the capacity of the vascular reservoirs. But as soon as the erection has reached its highest limits, the resistance of the parietes and the tension of the liquid in the interior of the corpus cavernosum, no longer permits the arteries to throw in a greater quantity of blood than is exactly equal to what the channels of discharge allow

If the erection of the ovary is not, like that of the uterus, accompanied with hæmorrhage, it is because the tunica albuginea and the stroma also of the ovary, much more resistant than the uterine mucous membrane, do not take on an exaggerated distension of their vessels. In certain abnormal cases, however, the ovarian erection may be the cause of hæmorrhage, and this, doubtless, is the most frequent, if not the sole origin of retro-uterine hæmatocele. Sometimes the hæmorrhage occurs in the peritoneum, and then, oftenest, has the ovary itself for its point of issue, which, I myself, as well as other observers, have seen englobed in the parietes of a cyst and communicating with the hæmorrhagic focus by a rent in the tunica albuginea.

It is probable enough that in such cases the blood proceeds from the vessels in the pedicle of one of the Graafian vesicles,\* or rather from a recent corpus luteum, which rupture under the effort of the erectile tension, and offer to the blood, compressed and crowded into the corpus spongiosum, a way by which it escapes in a much more considerable quantity than would have taken place under the ordinary conditions of the circulation.

When the hæmorrhagic focus has its seat in the substance of the broad ligament, it produces during life an accident extremely frequent; and also, when we undertake, by the aid of an injection thrown in by the ovarian veins, to bring on artificial erection of the bulb of the ovary, a rupture of sinuses, having extremely thin walls, in the pampiniform plexus, or in the corpus spongiosum itself.

But what is very important from our point of view is, the well-established coincidence† of hæmorrhages from the ovary, with menstruation, with ovulation, and the spasmodic contraction which determines the application of the fimbriated extremity with the surface of the ovary.

The mechanism for producing these accidental hæmorrhages of the ovary (retro-uterine), is identical with that for the uterine menstrual hæmorrhage, an *accident made normal* in the human female.‡

to pass off. This partial circulation being thus spontaneously and forcibly regulated and restored to an equilibrium, continues in this new way as long as the erection lasts.

\* In a case reported by Prost (*De l'hématocèle retro-utérine. Thèses de Paris, 1834*), the origin, the time and the cause of the hæmorrhage also correspond with the subsequent evidence derived from an examination of the parts; I saw, says he, the tumor, formed partly by the ovary, and partly by the tube, very much dilated and *adherent* to the gland. It is evident that in this instance an attack of phlegmasia, following the hæmorrhage, had fixed the tube and the ovary in that position of adaptation in which they found themselves at the moment of the accident.

† M. Prof. Laugier, in his lectures, and in a memoir communicated to the Academy of Sciences (v. *Comptes Rendus*, 1858), has applied himself particularly to demonstrate this coincidence.

‡ In order that the erection of the uterus should give rise to a hæmorrhage, certain conditions are necessary, some relating to its duration and others to the intensity of the erection, and consequently to the development also of the erectile formations. If the erection lasts only a short time, or is incomplete, the tension does not exceed the limit of resistance in the vascular walls, and there is no hæmorrhage. This is what often takes place at the commencement of puberty, when the erectile development of the vessels of the uterus not being complete, it is yet too far from the true vessels of the mucous membrane to influence them. Erection at that time manifests itself only by a sense of weight, of tension, and uterine colic (spasmodic muscular contractions), and sometimes a mucous exudation, more or less tinged with blood. This last phenomenon is observed in

We can now inquire how the evolution of a Graafian vesicle operates to produce the spasmodic contraction of the ovario-tubal muscles, the essential cause of all the phenomena which we have just passed in review.

The theory of the act of ovulation, is precisely the same with that of the act of parturition, of vomiting, of micturition, &c. &c., and is generally applicable to the normal play of all the muscular systems of organic life. In the case of parturition, when the ovum has attained the limit of its development, it acts upon the walls of the uterus like a veritable foreign body, and the irritation of the mucous membrane or the muscular envelope itself, transmitted to the ganglionic centres of the great sympathetic and the spinal marrow, is *reflected* back to the muscular system of the uterus and the muscles of the abdominal parietes, which concur in an energetic act for the expulsion of the child; and moreover, when the Graafian vesicle has arrived at a certain degree of development the distension of the true fibres of the *stroma* is the initial point of a *reflex irritation* which propagates itself throughout the muscular system of the internal organs of generation, to the mesoarium and the mesometrium.

The ovario-tubal fibres contract, draw near, and forcibly apply the fimbriated extremity upon the vesicle which protrudes, the veins, compressed in the meshes of the muscular net-work, force the blood to flow back and distend the corpus spongiosum, the vessels of the uterine mucous membrane yield, the menstrual flow establishes itself, and all these phenomena last as long as the stimulus continues to act, as long as the parietes of the vesicle resist the double effort of its contents which are increasing in size, and of the enveloping fibres which react against the distension;\* whilst at last, the expulsion of the ovule restores quiet throughout the whole muscular apparatus, the course of the blood once more becomes free in the sinuses, the distension of the erectile bodies diminishes by degrees, and the hæmorrhage from the mucous membrane of the uterus arrests itself.† Ovi-position is completed by

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some females of the mammalia, in whom erectile formations are wanting or altogether rudimentary.

We can in the directest manner observe all these peculiarities in the accidental erectile formations at the lower extremity of the rectum. In the beginning there is often nothing more than distension, and swelling of the hæmorrhoidal tumors without a flow of blood. Then the dilatation gradually reaching the capillaries of the mucous membrane, the spasm, which compresses the venous trunks which go in the thickness of the muscular coats, brings on the rupture of the superficial vessels, and after that time the hæmorrhoidal erection is regularly followed by hæmorrhage.

\* In the scaly reptiles and birds, the muscular fibres of the mesometrium radiate upon the surface of each vesicle and actively concur in retracting it towards the pedicle, like the dehiscence of the calix, the two hemispheres of which separate just at the stigma. The true fibres of the stroma doubtless play an analogous rôle in the mammalia, and their influence upon the expulsion of the ovule is much more probable, than that of the pretended suction exercised by the fimbriated extremity.

† The interesting observations of Bischoff tend to establish the fact that the liberation of the ovule takes place only at the end of the menstrual period. When impregnation takes place during this period and suddenly suppresses the bloody discharge, it results probably from the fact that the fecundating coitus, by over exciting the whole genital system, brings about a prompt rupture of an ovarian vesicle. It can also occur when any violent emotion suddenly suppresses the muscular contraction and the ovario-tubal erection; a collapse identical with what, under the same influence,

the migration of the ovum through the channel of the tube as far as the uterus, and from thence externally, if impregnation gives no signal for another series of phenomena.

We believe that the muscular and erectile system of the internal organs of generation, can be called into play, outside the menstrual period, by excitement which has its origin elsewhere than in the ovary.

Sexual excitement is often, doubtless, in the woman restricted to the erectile formations of the bulb and the clitoris; but it ought, when complete, when the venereal orgasm reaches its highest pitch of intensity, to over-ride these limits, and invade the essential organs of the generative function, in which the *special* voluptuous sensation is developed, which announces the accomplishment of the sexual act. *Kobelt*, who places the seat of all the generative, voluptuous sensations in the papillæ of the gland, was wrong in confounding with those sensations, more or less repeated and prolonged, which develop themselves in the mucous membrane of the organ in a passive state, this unique and instantaneous sensation, which in the man accompanies ejaculation, and in the woman manifests itself as the signal for the venereal orgasm.

Most profound, and all-pervading, it predominates over everything, embracing the whole organism, and presents a striking analogy in its characteristics, if not in its essence, to the gloomy sensations developed in the mental organization by the great sympathetic.

It appears, as far as we can judge by observation, very delicate in such a matter, that it is in the perinaal region, among the pelvic organs even, that the shock of the voluptuous paroxysm is felt, that its centre is among the vesiculæ seminales, and at the verumontanum (*uterus masculinus*, see my *Recherches sur le type des organes genitaux*, 1855), and doubtless in the woman, at the uterus, and that it announces the participation of these organs in the act which the organs of copulation have only prepared for.

If this be so, if the venereal orgasm in the woman has its seat in the internal organs of generation, we understand the rôle which those rich erectile formations ought to play, which so much surpass in their development those of the organs of copulation.

The antagonism evident from the development of the external and internal organs of generation in the two sexes, an antagonism which in the woman is everywhere progressive from the first, joined to the identity of the structure of the corpus cavernosum in both classes of organs, furnishes still another probability greatly in support of the idea that, under the same influences, similar phenomena would there develop themselves.

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suddenly puts an end to erection in man. In this case the fimbriated extremity ceases to be applied to the ovary, the ovule falls into the peritoneal cavity, or, if it has not been fecundated, atrophies and disappears, as we have seen in the batrachians; if it has been impregnated, it gives rise to extra-uterine pregnancy.



Erection of the vascular formations of the uterus and the ovary as a consequence of sexual excitement, will explain how. The erection lasting too short a time in this case to exhaust the resistance of the capillaries, and cause a hæmorrhage, is capable, if repeated, of accelerating the return of menstruation, and increasing the duration and quantity of the discharge, as Haller, Burdack, and Parent-Duchatelet have observed in lascivious women and prostitutes, in whom the menstrual flux, sometimes immoderate, could reproduce itself every fifteen days.

Facts observed by M. Coste, relating to the more frequent return of heat in animals in consequence of the cohabitation of the males with the females, and the possibility of impregnation in the human species outside the normal periods of ovulation, also find their explanation in the erection of the bulb of the ovary under the influence of sexual excitement, an erection accompanied by a mechanical congestion of the parenchyma, which would have the effect to determine the maturation of the ovum before the natural term.

The conclusions drawn from the investigations in this essay are :

1st, That in the human female, the body of the uterus presents the structure of an erectile organ, a true corpus spongiosum.

2d, That to the ovary also is annexed an erectile bulb.

3d, That in all classes of vertebrated animals, and particularly in all the mammalia, a special muscular apparatus embraces the oviduct and the ovary, and determines their adaptation.

4th, That the fibres of the ovario-tubal muscular membranes (*mesovarium* and *mesometrium*) have such relations with the corpus spongiosum and especially with their efferent sinuses, that, at the moment of contraction, the meshes of the network, in the midst of which the venous channels run, tightening themselves on all sides, the latter would necessarily find themselves compressed, and the flow of blood more or less obstructed.

5th, That this contraction of the ovario-tubal muscular apparatus lasts through the whole period of ovulation, and the obstacle to the flow of blood, and the erection of the corpus spongiosum of the uterus and the ovary, which is the result of it, have the same duration.

6th, That menstruation also, on the other hand, coinciding with ovulation, it is natural to consider that as as the immediate consequence of the uterine erection; a true menstrual hæmorrhage, moreover, not showing itself unless in the place where this organ presents a structure really erectile.

7th, That if sexual excitement can, as appears probable, determine the erection of the uterus and the ovary, it is easy to account for its influence in shortening the periods of menstruation and ovulation.

## Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE POSTON SOCIETY FOR MEDICAL  
IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

SEPT. 24th.—*Spina Bifida*. Dr. COALE related a case of spina bifida, exhibiting the specimen. The child was a male, nine weeks old, born of healthy parents who had previously had two children, both now living. There was nothing peculiar in the condition of the mother while carrying the child. At its birth, it had a tumor at the lower part of the lumbar region, of about the size of a nutmeg. At seven and a half weeks, this had more than doubled in size. It was translucent, the walls apparently so attenuated as to make it seem ready to burst upon the slightest pressure. At nine weeks it was double the size it was ten days before, being then two and a half inches across, and projecting an inch and a half. The surface was now ulcerated, and discharging an ichorous fluid. The attenuation of the walls had still further increased, and they seemed composed of nothing but the skin. The case had been shown to a noted quack of extensive practice, who pronounced it at once a mother's mark, caused by her longing after tomatoes, and taking that form in consequence. Pressure upon the tumor, made with as much force as seemed justified, considering the extreme delicacy of its walls, produced no effect on the child, unless to make it a little restive. From infancy there had never been either sensation or motion in the legs, and nutrition seemed to be very imperfect, though the mother had a good supply of milk. The bowels were too free, and the dejections seemed frequently crude and badly digested. The parents were very desirous that something should be done; but upon a thorough examination of the case, Dr. C. determined that nothing was advisable, and that death was imminent. This last prediction was correct. The following day the tumor burst. This was followed by some contraction of the flexors of the anus, but otherwise no apparent change took place in the condition of the child, which died three days afterwards, of exhaustion. On examination, the tumor was found to proceed from an opening caused by an absence of the posterior spinous processes of the last four lumbar vertebrae. The walls of the whole cavity, both spinal and integumental, were lined with pus; the cauda equina was intensely red, and covered with pus. The communication between the cavity of the tumor and those of the brain was very free, and since the bursting of the walls a deep depression existed at the anterior fontanelle.

As a simple case of spina bifida, this would scarce be worth reporting, but it seems to present a peculiarity in the slowness, or rather entire absence of any symptoms indicating cerebral disturbance after the bursting of the tumor and the great discharge of fluid that took place from it. In other cases, pressure upon the tumor, when the communication was perfect, produced coma and stertor; in this, however, the pressure, owing to a fear of rupturing the walls, might not have been sufficient for this. In other cases, the sudden discharge of the fluid has caused convulsions, followed by syncope and death; in this, there was no visible effect, nor did there seem to be any symptom commensurate with the high degree of inflammation existing in the walls of the tumor and the theca of the marrow.

Some thoughts upon the case have been suggested by a conversa-

tion on this subject at the meeting of the Society of Surgery of Paris, held last July. A case was exhibited of a child, three months old, in which the tumor was of the size of an orange, and the walls very thick. Chassaignac gave it as his opinion that as there was no paralysis, and as the walls of the tumor were thick, there should be no interference; but he goes on to say, if the walls were thin and threatened with inflammation, or likely to burst, he would advise puncture. Now it was the very thinness of the walls, and the great liability to inflammation that would seem to militate most strongly against the success of an operation in the present case. Had the walls been thick, they might have been punctured obliquely, and the exit of fluid then regulated. But besides the fear of the consequences of emptying the fluid at once, the danger of inflammation from the admission of air seemed imminent—in fact, unavoidable. Again, the paralysis of the nerves, both of sensation and of motion, seemed to afford but little hope for the comfort of the child's existence, and seemed still further to make the operation undesirable.

In looking in various directions for a summary of the state of medical science with regard to spina bifida, none could be found. Particular surgeons have given their views in monographs, and many cases appear scattered through the journals, but there is no collected view of the malformation and of the means used to cure it, and the success of such means. It appears that a very small number of cases get well of themselves, by the thickening of the walls of the tumor, and gradual obliteration, by this means, of the cavity of the sac. Pressure has been used to favor this. Dubourg operated on it by contracting the soft part over the opening into the vertebral column (*Gaz. Méd. de Paris*, 1841). Behrend cured it in an infant seven weeks old, by applications of collodion (*Arch. Gén.*, Aug., 1859). Stephens (in the *N. Y. Jour. of Med. and Collat. Sciences*, No. 2) gives a case treated successfully by pressure. We saw this tried, many years ago, by means of a needle and a capillary trocar, and with a prospect of success; but the child died with acute pneumonia. In the case we have just related, none of these means seemed advisable, even if possible.

Dr. H. J. BIGELOW had formerly reported to the Society four cases of operation in this disease, of which two were successful. One was by simple acupuncture; result, fatal from evacuation of the fluid and convulsions. Three were treated by ligature, of which two recovered. In one of the last cases, a child 3 years old, there was a large tumor in the back of the neck; a ligature was applied after puncture. The patient had convulsions, but recovered in three weeks. In the other case, the child being under a year old, he wound a string tightly around the base of the tumor, so as to form a pedicle, and then punctured the distal side of the tumor. Convulsions followed, but the child recovered. In the fourth case, the same treatment was followed, but the child died. Dr. B. remarked that, as a general rule, the subjects of this disease are so permanently disabled by prominence of the tumor and by the effects of the lesion, that an operation is to be advised, even though dangerous. Continuous evacuation of the fluid in the spinal column is followed by convulsions and death. Hence, since his first operation, he had tied the base of the tumor for an inch with a spirally wound cord, to produce adhesion of the cavity, before the separation of the base, and with the above results, viz., two recoveries and one death. The two former children were doing well, at

least a year after operation, exhibiting little protrusion. Dr. B. did not think that any amelioration could be looked for, of paralytic symptoms when they exist; but the removal of the tumor was much to gain, especially if large or thin.

Dr. B. inquired of Dr. STORER the result of a case he had seen in consultation with him, where no operation was done. Dr. S. replied that the child lived about a year and a half, being very difficult to move or handle, and then died from a pin-like aperture of the sac, inducing dribbling of fluid, convulsions and death, in thirty-six hours.

Dr. WARREN had seen three or four cases within the past five or six months. In one, that of a vigorous child, with a large tumor, he applied a ligature tightly around the base, avoiding the use of the needle, in order not to puncture the tumor. After the ligature was in place, it was suggested that a second should be applied, or rolled around or beyond the other, so as further to reduce its bulk. The second ligature had this effect, but both came off in the struggles of the child some five or six hours after application. No bad effect resulted, but the mother declined further operation. In another case, the patient, a girl 13 years old, had a club-foot, which he amputated on account of caries of the bones, and extensive ulceration, caused by pressure in walking. Learning that she had incontinence of urine and feces, Dr. W., on investigation, discovered that there was a large tumor on the lower part of the back, connected with a spina bifida; the incontinence was evidently owing to the interruption of nervous influence. The skin about the external genitals was thickened and hardened like leather, from the constant flow of irritating matters over it. Some years ago he had met with a precisely similar case; that of a young lady, 20 years old, in which he performed amputation for the same reasons as in the above case. In the latter case, the patient had no inconvenience from the spina bifida, unless the tumor was accidentally struck, when temporary paralysis occurred. The ulceration and caries were undoubtedly caused by a want of sufficient nervous power in the limb to enable it to resist pressure. Dr. W. thought the operation ought to be attempted if it offered one chance of success out of twenty, the disease or malformation caused so much inconvenience and suffering.

SEPT. 24th.—*Pneumothorax, with effusion; the Physical Signs being strongly marked, and the Symptoms comparatively but little so.*—Dr. JACKSON reported the case, which had recently been under his care at the Hospital, for a few days.

The patient was a shoemaker, 21 years of age, and previously healthy, but had been rather unwell during the spring of 1859, though without any local symptoms, so far as reported. In May, from which time he dated his sickness, he attempted to lift a barrel of sand, felt soreness in the chest, and on the following morning raised half an ounce of blood; and in twenty-four hours he raised twenty ounces more. Prostration followed, with cough, and he did no work from that time, though he was not confined to the house. In September he resumed work, feeling better, and so continued till January or February, when he had some pain in the chest, which he thinks may have been about the lower half of the sternum. A week afterwards he again gave up work; the pain at once left him, and it did not return until a month before admission. In May he commenced the use of whiskey, and continued it from that time, feeling sure that he was

much benefited by its use, locally and generally; the cough, which had been considerable until then, mostly subsiding. The expectoration was never much; and there never was any lancinating pain about the chest. Moderate dyspnoea, with the pain, for a month before entrance; and never at any time strongly marked during sickness. He had done no work since last winter, and had never been confined to bed by sickness; no marked hectic.

On admission, his general aspect was delicate, but his countenance easy. On examination of the left chest, there was throughout a marked prominence with fulness of the intercostal spaces; the heart beating in the region of the right mamma. In whatever position he was placed, whether erect, upon his back, or upon his hands and knees, the depending parts were perfectly flat on percussion, the resonance elsewhere being as much or more than upon the right side; and it was shown on percussion that the diseased cavity extended as far as the cartilages of the ribs upon the right side inclusive. When the patient shook himself, the swashing of the fluid within the chest was distinctly audible at a distance of thirty feet, and would have been heard still further off, if the room had been longer; this sound was first heard by patient himself, last July, and the enlargement of the side was first noticed in August. Respiratory sound sufficiently distinct posteriorly over upper lobe, and to some extent over lower; probably transmitted, though it seemed not to be so; below clavicle, a distant amphoric sound was heard. Elsewhere, over this side, there was no sound of respiration; but a very distinct metallic resonance on forced inspiration. Metallic resonance of voice also; not constant, but strongly marked, and about as much so where there was flatness, as where there was resonance on percussion. Over right side of chest nothing unusual, excepting what has been above stated, and a supplementary respiration. Nowhere any r le in the chest.

Dr. J supposed that a tubercular deposit had taken place in the lungs, in this case, in the spring of 1859; and that a perforation into the pleural cavity must have occurred last January or February. He remarked upon the very interesting clinical fact, that the perforation should have been accompanied with so little pain, and have been followed by so few urgent symptoms of any kind; but that it was another of the many cases that have been observed here, in which the symptoms did not accord with the descriptions as usually given by authors.

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## THE BOSTON MEDICAL AND SURGICAL JOURNAL.

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BOSTON: THURSDAY, OCTOBER 11, 1860.

ADJOURNED MEETING OF THE MASSACHUSETTS MEDICAL SOCIETY.—A meeting of the Councillors of the Massachusetts Medical Society was holden on Wednesday, October 3d, for the transaction of unfinished business; after which the Society met, agreeably to adjournment, and was called to order by Dr. Metcalf, of Mendon. Between 40 and 50 members were present, and several important resolutions were offered for consideration. The first in order that we have space to mention,

was a resolution suggested by Dr. JAMES JACKSON, for the reconsideration of the vote passed at the Annual Meeting, by which the Society disclaimed all responsibility for the sentiments contained in the Annual Address. The following remarks of Dr. Jackson, in proposing this resolution, and which we are glad to be able to give in full, were read by Dr. Gould :—

MR. PRESIDENT,—As I fear that I cannot make my voice heard, I beg leave to present a motion in writing, and to ask a friend to read what I should be glad to say. Before stating the motion, it is necessary for me to make some preliminary remarks.

Sir, it appears, by the printed copy of the proceedings at our meeting on the 30th of May last, of which this is an adjournment, that a resolution was passed in reference to the discourse which had been delivered on the preceding day, in the following words :—“*Resolved*, That the Society disclaims all responsibility for the sentiments contained in this Annual Address.”

Upon this proceeding I remark, first, that it has been an established custom of this Society for a period, as I believe, of fifty years or more, to abstain from any vote respecting the annual discourse. The rule has been that the orator shall deliver a copy of the discourse to the Recording Secretary, to be placed on his files; and the uniform practice has been to print the discourse, whatever may have been its contents. It has not been the practice of the Society to pass a vote of approbation, or of disapprobation of the doctrines or opinions contained in the discourse;\* and the Society has not been regarded as responsible for any such doctrines or opinions. In the present instance, the Society, by its vote, disavows any responsibility for the discourse. In so doing it seems to me to go out of its way; it deviates from its accustomed practice, and thereby throws an insult on one of its fellows, whom it had invited to read the annual discourse.

Secondly, although, as a matter of form, this resolution appears to be an act of the Society, I think it cannot be regarded as being *virtually* such an act. I presume that the number of Fellows who attended the Annual Meeting in May, and listened to the discourse, was not less than three hundred; and I believe the whole number of the Fellows is about nine hundred. Now it seems by the record that the number of those who voted on the occasion was less than twenty, and the majority of votes in favor of the resolution was very small. But if you compare the number of the voters on this occasion with the whole number of our Fellows, you find it exceedingly small. If the vote had operated to invest one thousand dollars of the funds of the Society in any manner, especially in any peculiar manner, I think it would have occurred to the Fellows present at the meeting that it was not wise to take such a measure, when their number was so small. But was it not much more important to be cautious in passing a vote of censure on one of its Fellows, than in disposing, in any way, of a thousand dollars? I will not dwell upon the character of the vote. I have not in my mind the names of the gentlemen who were in favor of passing it. I believe that they acted hastily. I believe that they thought some reproach had been thrown on the members of our profession, which was undeserved, and which it became them to resent—the more, perhaps, because they thought that this reproach came from a man highly distinguished in the literary and scientific world. If the matter was so grave, in the mind of any one, as to demand this public expression of disapprobation on the part of the Society, surely it ought to have been left for the Society at a full meeting, and, after due consideration, to give its deliberate decision on the subject. Sir, I do not wish to find fault with any one. I feel persuaded that this vote was taken hastily, and under the influence of some excitement. To support this statement I might, among other things, show that the objection made to the discourse was, probably, owing to a few sentences in it, and that the qualifying sentences in other parts of it were not brought to mind. As the discourse was to be published, it surely would have been discreet to have waited until its contents could have been carefully perused and duly weighed, be-

\* Since this was written, I have learnt that of late years the Society has passed some complimentary vote after the delivery of the annual discourse. It was not so formerly.

fore expressing an opinion upon it, directly or indirectly. I shall be surprised if it should appear that any large number of the Fellows would now be willing to support the opinion conveyed in the vote under consideration. But, Sir, I beg it may be considered what the consequences may, nay, I should say, must be, if we do not recall the vote. In that case, at all future annual meetings, instead of hurrying off from an entertaining and instructive discourse to the annual festival of another description, it will be proper for the Society to continue its session, to wait to hear whether any gentleman thinks that anything unsound or unjustifiable has been said by the orator. If, then, any such allegation be brought forward, the Society should on the spot, or at an adjourned meeting, go into a consideration and discussion on the subject; and this might require debates for a week, before a decision could be had. Sir, is it not better to leave the subject, whatever it may be, for observation, praise, or dispraise, in some other mode; some mode not involving the inconveniences of calling physicians from all parts of the Commonwealth to attend a temporary meeting. It is partly from a regard to the inconveniences of such a course that I do not advert now to passages in the discourse at our last Annual Meeting, which I suppose to have been offensive to some of our brethren. It is not that those passages, and the opinions they contain, are indefensible; but that we cannot well give the time at any of our meetings to go into a discussion of them. If the orator has made statements which seemed to any one incorrect, or drew inferences which were illogical, or unjustifiable, the best opposition to him could be made through the press. If any error could be pointed out to him, I doubt not that he would hasten to acknowledge it. If, in his desire to bring truth to light, such truth as is known to the most thoughtful and strongest minds; if with these views he made his statements, or his inferences, in the glowing language which always flows from the lips of some gifted man, if he availed himself in a public *oration*, not in a sober *essay*—if he availed himself of a poet's license, let us take and swallow the wholesome morsels which he offers to us, and not cry out that they are too hot, and that they burn our mouths.

Mr. President, I hope that my exordium has not been too tedious; and I would now urge that the resolution, passed at the meeting of which this is an adjournment, and which has now been read, be reconsidered.

If, Sir, the vote on this motion should be in the affirmative, I shall ask leave to suggest that the resolution be revoked or disavowed. And, Sir, I shall hope that the vote on this motion may be taken without discussion. I think that some evil, some warm feelings may be excited by a discussion, and that probably every one is as well prepared to vote now, as he would be after a discussion. For my own part, if I have not already said so with sufficient distinctness, I beg to say now, that I believe the gentlemen, who were in favor of the vote I have referred to, were not actuated by any improper motive; that from a partial misunderstanding of the discourse their feelings were excited, and that they acted in haste to maintain what they regarded as the honor of the profession.

Finally, let me say that I do not ask that the motion which I suggest be received and adopted by the Society, on account of the orator, or for his benefit in any way; but for the benefit of the Society. If the Society has taken a step in the wrong direction hastily, it will redound to its honor to retrace that step.

On the conclusion of Dr. Jackson's remarks, and after much discussion, a member, who had voted in the affirmative on the passage of the former vote, in order to bring the question legitimately before this meeting, now moved its reconsideration, which was carried.

It was afterwards, on motion of Dr. Bowditch, voted that the Massachusetts Medical Society hereby declares that it does not consider itself as having endorsed or censured the opinions advanced in former published addresses; nor will it hold itself responsible for any opinions or sentiments advanced in any future addresses. Also that the Publishing Committee be directed to print a statement to this effect at the commencement of each Annual Address that may hereafter be published.



After the transaction of some other important business, to which we have not the space to allude, the Society adjourned to meet on the first Wednesday of November, at 10 o'clock, A.M.

A pleasing incident at this meeting was the presentation to the Society, by Dr. John Homans, of a full length photographic portrait of the venerable Dr. James Jackson, which will hereafter adorn its rooms.

**DEATH FROM CHLOROFORM.**—Dr. W. Krause, of Cincinnati, Ohio, in the *Lancet and Observer* of that city, reports a case of death from the use of chloroform, on the 25th of September, which was administered as an anæsthetic during the operation for artificial pupil. It was inhaled, while in the recumbent posture, for half an hour before the operation, and one and a half ounces taken without producing the usual ecstatic symptoms. The patient, whose general health had been good, was restless during the operation, which lasted about five minutes, and his breathing began to be stertorous. As the operator was about proceeding to let out the blood which had collected in the anterior chamber, a sudden paleness of the anterior ciliary vessels was noticed, and the patient ceased to respire. The usual means of resuscitation were resorted to, including Marshall Hall's "ready method," and were continued for an hour and a quarter, when pulsation wholly stopped.

**MORTALITY OF PROVIDENCE, R. I.**—There were 94 deaths in Providence during the month of September. Of these, 84 were of American and 10 of foreign nativity; 50 of American and 44 of foreign parentage; 43 males, 51 females; 92 whites, 2 colored; 41 on the east side, 50 on the west side, and 3 in public institutions. The number of deaths in September was six less than in the preceding month, two more than in September, 1859, and considerably less than the average as corrected for the increase of population. The population of the city, by the census of the present year, is 50,669.

#### VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, OCTOBER 6th, 1860.

##### DEATHS.

|   | Males. | Females | Total. |
|---|--------|---------|--------|
| Deaths during the week, . . . . .   | 39     | 37      | 76     |
| Average Mortality of the corresponding weeks of the ten years, 1850-1860, . . . . . | 41.6   | 39.6    | 81.2   |
| Average corrected to increased population, . . . . .                                | ..     | ..      | 90.6   |
| Deaths of persons above 90, . . . . .   | ..     | ..      | ..     |

##### Mortality from Prevailing Diseases.

| Phthisis. | Chol. Infan. | Scar. Fev. | Pneumonia. | Measles. | Smallpox. | Dysentery. | Typhoid Fever. |
|-----------|--------------|------------|------------|----------|-----------|------------|----------------|
| 9         | 3            | 3          | 2          | 1        | 0         | 2          | 3              |

##### METEOROLOGY.

From Observations taken at the Observatory of Harvard College.

|                                       |        |  |       |
|---------------------------------------|--------|--|-------|
| Mean height of Barometer, . . . . .   | 30.236 | Highest point of Thermometer, . . . . .  | 66°   |
| Highest point of Barometer, . . . . . | 30.540 | Lowest point of Thermometer, . . . . .   | 33°   |
| Lowest point of Barometer, . . . . .  | 29.900 | General direction of Wind, . . . . .     | East. |
| Mean Temperature, . . . . .           | 49°.07 | Whole am't of Rain in the week . . . . . | ..    |

**COMMUNICATIONS RECEIVED.**—Case of Compound and Comminuted Fracture of the Humerus, followed by Pseudarthrosis.

**BOOKS.**—Transactions of the Medical Society of the State of Pennsylvania at its Twelfth Annual Meeting.

**Deaths in Boston** for the week ending Saturday noon, October 6th, 76. Males, 39—Females, 37.—Anæmia, 1—apoplexy, 1—disease of the bowels, 1—disease of the brain, 1—inflammation of the brain, 1—bronchitis, 2—cancer (of the stomach), 1—cholera infantum, 3—consumption, 9—convulsions, 5—croup, 3—debility, 2—diarrhoea, 2—diphtheria, 2—dropsy, 1—dropsy of the brain, 5—drowned, 1—dysentery, 2—scarlet fever, 2—typhoid fever, 3—gastritis, 1—disease of the heart, 1—hepatitis, 1—disease of the kidneys, 1—disease of the knee, 1—congestion of the lungs, 2—gangrene of the lungs, 1—inflammation of the lungs, 2—marasmus, 1—measles, 1—old age, 2—paralysis, 1—premature birth, 1—scrofula, 2—disease of the stomach, 1—tabes mesenterica, 1—teething, 2—thrush, 1—ulcer of the stomach, 1—varicocele, 1—whooping cough, 3.

Under 5 years, 35—between 5 and 20 years, 6—between 20 and 40 years, 14—between 40 and 60 years, 10—above 60 years, 11. Born in the United States, 48—Ireland, 24—other places, 4.